

Remarks

Claims 1, 3-7, and 10 are pending. Claims 2 and 12-28 have been canceled. Claims 8, 9, and 11 have been withdrawn from consideration. Claim 1 is currently amended.

Support for the amendment to claim 1 is found in the specification at page 15, Example 8 (0.1 parts by weight crown ether in 20.6 parts by weight total composition).

Objection

The amendment filed April 14, 2003 was objected to under 35 USC § 132 due to new matter being introduced into the specification. The Patent Office submits that the added material “requiring a polyimide which is thermoplastic” is new matter.

Applicant has deleted “polyimides” from claim 1. Accordingly, Applicant respectfully requests that the above objection to the claims be withdrawn.

§ 112 Rejections

Claims 1, 3-6, and 10 were rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement.

The Patent Office submits that the claims contain subject matter which was not described in the specification in such a way to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention for the reasons stated above.

Applicant has deleted “polyimides” from claim 1. Accordingly, Applicant respectfully requests that the above rejection of the claims be withdrawn.

§ 103 Rejections

Claims 1, 3-6, and 10 were rejected under 35 USC § 103(a) as being unpatentable over Tse et al. (US 5,227,426) for the reasons stated in the previous Office Action. The Patent Office submits that Tse et al. disclose a curable adhesive composition comprising an olefin polymer with pendent functional groups such as carboxyl or amide, and catalysts such as tetrabutyl phosphonium bromide, crown ethers, and/or tetrabutyl ammonium hydroxide. The Patent Office concludes that it would have been obvious to a person of ordinary skill in the art at the time the invention was made

to select an effective combination of known catalysts as curing agents and use a commercially available crown ether such as 18-crown-6 ether in the adhesive composition of Tse et al. depending on the particular functional groups and base polymer used, and the curing properties, adhesive, and processing characteristics required by a given application.

Applicant's invention as claimed is a composition for bonding to a fluoropolymer. The bonding composition contains a mixture of a melt-processable, substantially non-fluorinated polymer, base, and at least 0.5 weight percent crown ether. The base and crown ether are mixed into the polymer; that is, become a part of or are incorporated into the polymer.

As previously stated by Applicant, Tse et al. disclose adhesives containing a polymer wherein the polymer has an elastomeric backbone and thermoplastic macromonomer side chain grafts. The macromonomers are grafted onto the backbone in a nucleophilic substitution reaction (column 12, lines 64-68). Tse et al. mention the use of a phase transfer catalyst to catalyze the graft of the macromonomer to the backbone. Tse et al. disclose that a phase transfer catalyst is useful in the situation where different solvents or reaction mediums are used for the backbone polymer and the macromonomer (nucleophile) (column 26, lines 24-29; column 28, lines 8-13) or in the situation where the backbone polymer/macromonomer are dissolved in one phase and a simple nucleophilic reagent is dissolved in another (column 29, line 63 - column 30, line 8). In these cases, a phase transfer catalyst is used to promote the nucleophilic reaction at the interface of the two phases. Tse et al. also disclose that phase transfer catalysts are sometimes beneficial in speeding up a one phase solution reaction (column 30, lines 16-19). Thus, the phase transfer catalyst is used as a "catalyst" in the classical sense; that is, the phase transfer catalyst is not incorporated into the polymeric composition but only used in solution to aid in the reaction.

Additionally, Tse et al. is silent on any amount of crown ether that may hypothetically be present in an isolated grafted polymer. Tse et al. do not disclose or suggest any polymer composition containing at least 0.5 weight percent crown ether.

For at least these reasons, Applicant submits that the claimed invention is patentable over Tse et al. Accordingly, Applicant respectfully requests that the above rejection of claims 1, 3-6, and 10 be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested. Examiner Chen is invited to contact the representative below if she believes that such a call would facilitate understanding or prosecution of the present claims.

Respectfully submitted,

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Date

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